MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2015/2016

BFM1014 – FUNDAMENTALS OF FINANCE

(All sections / Groups)

2 MARCH 2016
2.30 PM – 4.30 PM
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of **SIX (6)** pages excluding cover page.

2. Attempt only **FOUR (4)** out of **FIVE (5)** questions. All questions carry equal marks and the distribution of the marks for each question is given.

4. All answer should be written on the Answer Booklet provided.

Attempt FOUR (4) out of FIVE (5) questions. All questions carry equal marks and the distribution of the marks for each question is given.

QUESTION 1

a. Define what working capital management is and list three decisions that a financial manager makes that would fall under the category of working capital management.

(5 marks)

b. Assume this is your first day on the job as the new chief financial officer of a mid-size company. Identify the three categories of key ratios that you would compute first as you try to understand the financial status of the firm. Explain why you had selected the three categories of ratios.

(6 marks)

c. New Steel Products has total assets of RM 991,000, a total asset turnover rate of 1.1, a debt-equity ratio of 0.6, and a return on equity of 8.7 percent. What is the firm's net income?

(6 marks)

d. Wonderland's Antiques has a total asset turnover rate of 1.2, an equity multiplier of 1.4, a profit margin of 5 percent, a retention ratio of 0.8, and total assets of RM 120,000.

i. Calculate the internal growth rate. (2 marks)

ii. Calculate the sustainable growth rate. (2 marks)

iii. Define internal and sustainable growth rate. (2 marks)

iv. Which growth rate is higher and why? (2 marks)

[TOTAL 25 MARKS]

Continued...

QUESTION 2

a. You expect to receive RM 20,000 at graduation one year from now. You plan on investing it at 6 percent until you have RM 100,000. How long will you have to wait from now?

(5 marks)

b. You have RM 5,000 which you want to invest for the next 45 years. You are offered an investment plan that will pay you 6 percent per year for the next 15 years and 10 percent per year for the last 30 years. How much will you have at the end of the 45 years? How much will you have if the investment plan pays you 10 percent per year for the first 15 years and 6 percent per year for the next 30 years?

(10 marks)

c. Clarence borrows a loan of RM 60,000 for five years at an APR of 8 percent. The principal is to be repaid in equal annual payments over the life of the loan with interest paid annually. Payments will be made at the end of each year. What is the total payment due for year 3 of this loan?

(10 marks)

[TOTAL 25 MARKS]

Continued...

QUESTION 3

a. Alpha Packing Company has an issue of RM 1,000 par value bonds with a 14 percent coupon interest rate outstanding. The issue pays interest semiannually and has 10 years remaining to its maturity date. Bonds of similar risk are currently selling to yield a 12 percent rate of return.

i. What is the value of each interest payment for every six month?

(2 marks)

ii. Calculate the value of these Alpha Packing Company bonds.

(4 marks)

b. Space food Products Berhad will pay a dividend of RM 2.40 per share this year. It is expected that this dividend will grow by 5% per year each year in the future. What will be the current value of a single share of Space food's stock if the firm's equity cost of capital is 12%?

(3 marks)

c. Uncle Tim's Inventions has an expected dividend next year of RM 3.60 and a required return of 12 percent. Calculate the value of a share of common stock assuming a zero growth rate of dividends.

(3 marks)

d. The Spoon Restaurant is considering a project with an initial cost of RM 525,000. The project will not produce any cash flows for the first three years. Starting in year four, the project will produce cash inflows of RM 721,000 a year for three years. This project is risky, so the firm has assigned it a discount rate of 17 percent.

i. When is the payback period for the project? (4 marks)

ii. What is the project's net present value? (6 marks)

iii. What is the probability index? (3 marks)

[TOTAL 25 MARKS]

Continued...

QUESTION 4

a. Modigliani and Miller advocate that the value of a company will be maximized by financing almost entirely with leverage. Why is debt beneficial to a firm, according to Modigliani and Miller's proposition?

(4 marks)

b. Monster Berhad had just paid a dividend of RM0.50 per share, and dividends are expected to grow at a 4% per year indefinitely. The stock is quoted at RM7 per share on Bursa Malaysia. The return on FTSE Bursa Malaysia KLCI is 8%, and the 3-month Malaysia Treasury Bills is currently yielding 2.1%. Besides, the stock has 1.5 times the systematic risk as the market portfolio. Based on this information, what is your best estimate of the company's cost of equity?

(5 marks)

c. Pong Pong Berhad has 1 million shares outstanding in the market. The current share price is RM 13. The required return on the company's equity is 15%. The company issues 10,000 new bonds at an annual coupon rate of 7.8%. The bonds have 20 years to maturity with a yield-to-maturity of 6.7% and sell for 110% of par. If the corporate tax rate is 25%, what is the weighted average cost of capital for Pong Pong Berhad?

(8 marks)

d. Lambda and Rho Berhad is listed on the Main market of Bursa Malaysia. The market price per share is RM10. Show the effect of a 15% stock dividend on the stockholder equity accounts.

	RM
Preferred stock	0
Common stock (330, 000 shares at RM1 par)	330,000
Paid-in capital in excess of par	125,000
Retained earnings	590,000
Total stockholders' equity	**1,045,000**

(8 marks)

[TOTAL 25 MARKS]

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QUESTION 5

a. Arlo (M) Berhad has the following financial information for the financial year ended 31 December 2020. Assume the firm's sales are credit sales.

	RM
Sales	2,000,000
Cost of Goods Sold	850,000
Inventories	150,000
Accounts receivable	77,000
Accounts payable	43,000
Current Assets	12,000
Current Liabilities	58,000

i. Calculate the company's operating cycle and cash conversion cycle for the financial year ended 31 December 2020.

(8 marks)

ii. The industry average for the cash conversion cycle and operating cycle of manufacturing companies are 45 days and 57 days, respectively. Comment on Arlo Berhad's working capital management based on your answers in part i.

(6 marks)

b. Emma Levine Group begins each month with 245 designer gowns. The stock is sold and reordered each month. The carrying cost per unit is RM10 and the fixed cost per order is RM102. Is Emma Levine following an economically advisable strategy? Show the calculation.

(6 marks)

c. Identify and briefly explain five ways in which a firm can finance its short-term assets.

(5 marks)

[TOTAL 25 MARKS]

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APPENDIX

Future Value:

$FV = PV(1 + r)^t$

Annuities

$$PV = PMT\left[\frac{1-\frac{1}{(1+r)^t}}{r}\right]$$

$$FV = PMT\left[\frac{(1+r)^t-1}{r}\right]$$

Perpetuity: PV = PMT / r

EAR & APR

$$EAR = \left[1+\frac{APR}{m}\right]^m - 1$$

$$APR = m\left[(1+EAR)^{1/m} - 1\right]$$

Bond Pricing

$$\text{Bond Value} = C\left[\frac{1-\frac{1}{(1+YTM)^t}}{YTM}\right] + \frac{F}{(1+YTM)^t}$$

Stock Value

$$\hat{P}_0 = \sum_{t=1}^{\infty}\frac{D_t}{(1+R)^t}$$

Estimating Dividends

Zero growth: $P_0 = D / R$

Constant Growth Stock: $D_t = D_0(1+g)^t$

Dividend Growth Model:

$$\hat{P}_0 = \frac{D_0(1+g)}{R-g} = \frac{D_1}{R-g}$$

Nonconstant + Constant growth

$$\hat{P}_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \frac{D_3}{(1+R)^3} + \ldots + \frac{D_\infty}{(1+R)^\infty}$$

Net Present Value

$$NPV = \sum_{t=0}^{n}\frac{CF_t}{(1+R)^t} - CF_0$$

Cost of equity

$$R_E = R_f + \beta_E(E(R_M) - R_f)$$

WACC

$= E/V \times R_E + P/V \times R_P + D/V \times R_D(1 - T_C)$

Operating cycle

= inventory period + accounts receivable period

Cash Cycle

= Operating Cycle – Accounts payable period

EOQ Model $Q^* = \sqrt{\frac{2TF}{CC}}$

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